

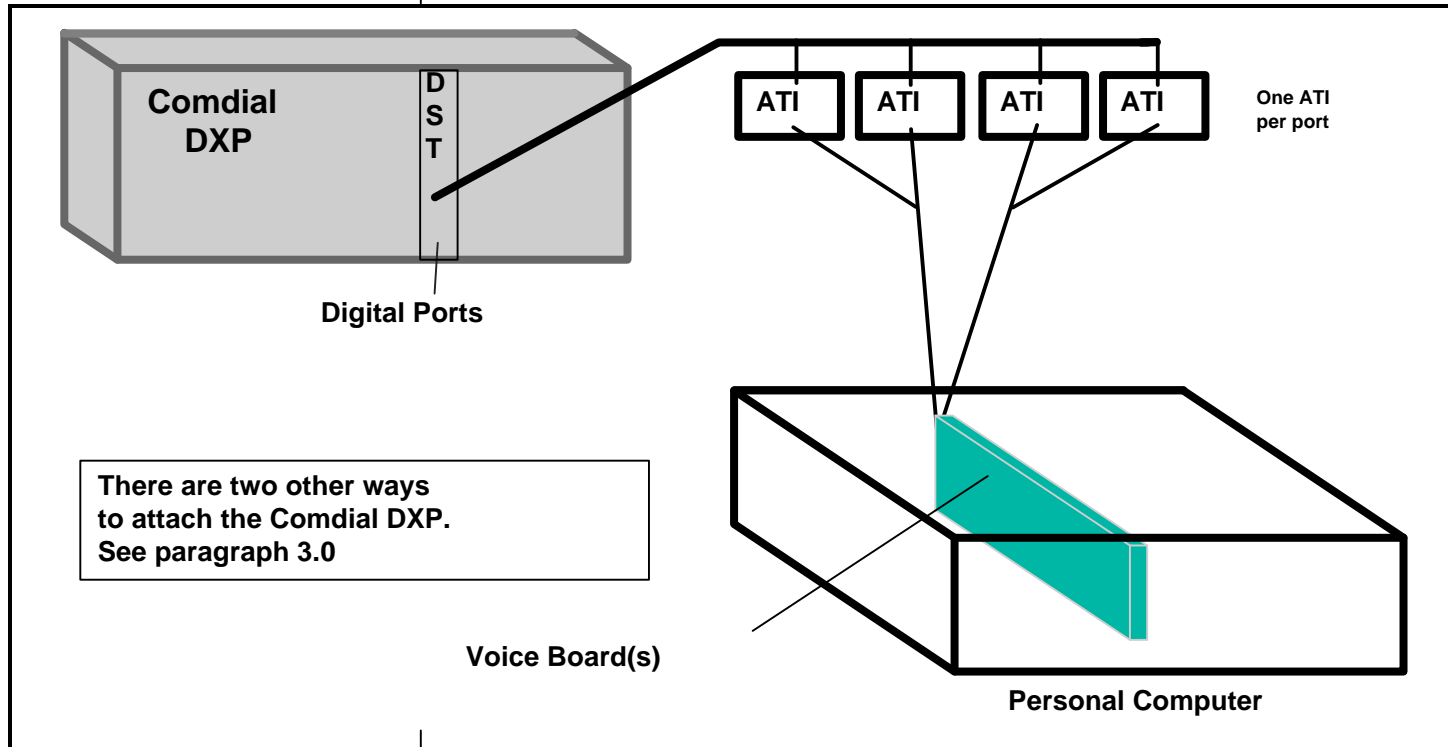
Octel® 100

Messaging Server

## Configuration Note 7042

# Comdial DXP\*

Revised 06/21/01



Communications between the Comdial DXP and the O100 are via DTMF Inband Signaling.

Supported Voice Processing Module

## 1.0 METHOD OF INTEGRATION

Inband. Call forward to personal greeting is achieved via DTMF signals passed from the Comdial DXP to the Octel 100, hereafter identified by (O100). Message waiting indicators are set and canceled by dialing a feature access code followed by the extension number. A hook flash followed by the extension transfers outside callers to the operator (internal transfers are not possible).

## 1.1 SUPPORTED VOICE PROCESSING MODULE

The Octel 100 is a Year 2000 (Y2K) compliant, PC based, enhanced voice messaging product release intended to replace the OPC, Signature Performer, CEO, CP, and CP+ product lines. For installed systems that

**Disclaimer:** Configuration Notes are designed to be a general guide reflecting AVAYA Inc.'s experience configuring its systems. These notes cannot anticipate every configuration possibility given the inherent variations in all hardware and software products. Please understand that you may experience a problem not detailed in a Configuration Note. If so, please notify the TAC/TSO at (408) 922-1822 and if appropriate we will include it in our next revision. AVAYA Inc. accepts no responsibility for errors or omissions contained herein.

have port capacities above 16 ports contact your Avaya representative for the proper solution

**O100 Ordering Information**

**2.0 O100 ORDERING INFORMATION**

There are many options available for this product, depending on the application. Voice Boards supported:

Dialogic DIALOG/4™

Fax Boards supported:

Brooktrout TruFax® 200

Optional Remote Service

Internal Modem

Please consult with your sales representative.

**This integration will support 16 ports**

**2.1 VOICEMAIL PORTS SUPPORT**

Standard configuration for this integration is 16 ports Max. Provision has been made that based on the type of Platform and Sentinel, that a max 32 ports may be achieved. Contact your Avaya Inc representative if more than 16 ports are required.

**Switch hardware requirements**

**3.0 COMDIAL HARDWARE REQUIREMENTS**

- O100 can be attached to Digital Station ports using an ATI-D-1PT, Analog Station Ports using VMI-X, or Industry Standard Stations using additional DTMF Receivers and an external Ring Generator. Each configuration is listed below with their corresponding part numbers. You can combine any of the configurations listed below.
  - Digital Station Card DXDST-8 (8 port) or DXDST-16 (16 port). Each O100 port requires an Analog Terminal Interface (ATI-D-1PT, one per O100 port). Instructions for installing the Digital Station Cards with the ATI-D-1PT can be found in Comdial's IMI-89-037.
  - Analog Station Card DXAST-8 (8 port) or DXAST-16 (16 port). A Voice Mail Interface (VMI-X, one for every two O100 ports) is required for every two O100 ports. Instructions for installing the Analog Station Cards with the VMI-X can be found in Comdial's IMI-89-023.
  - Industry Standard Card DXIST-8 (8 port) or DXIST-16 (16 port). An external ring generator (DXRNG) and additional DTMF Receivers are required if O100 is installed on Industry Standard Ports. The DXP CPU card has two DTMF Receivers, additional DTMF Receivers can be installed on an Auxiliary Circuit Board (DXAUX). Each DTMF Receiver Card (DXOPT-TON) provides four additional DTMF Receivers. Instructions for installing Industry Standard Station Cards can be found in Comdial's IMI-89-078.

**Switch Software Requirements**

**3.1 COMDIAL DXP SOFTWARE REQUIREMENTS**

- Rev. 7.A and above

**Additional Material Requirements**

**3.2 ADDITIONAL MATERIAL REQUIREMENTS**

- When using the DIALOG/4 you will need:
  - One RJ-14 jack with 4-conductor line cord for every two O100 ports The specific configuration will vary depending on the type of station card being used with the DXP. Refer to the appropriate Comdial Installation Instructions (listed above in 3.0).
- One analog line for remote service access
- One RJ-11 Jack for above and 2-conductor modular telephone cord.
- If FaxMail is installed.
  - One analog line per FAX port. The specific configuration will vary depending on the type of station card being used with the DXP. Refer to the appropriate Comdial Installation Instructions (listed above in 3.0).
  - One RJ-11 Jack for every Brooktrout TruFax® 200, along with 4-conductor modular telephone cords.

**Supported Integration Features**

**4.0 SUPPORTED FEATURES**

[✓] Items are supported

<b>System Forward to Personal Greeting</b>		<b>Multiple Return to Operator <sup>1</sup></b>	[✓]
All Calls	[ ]	<b>Direct Call <sup>2</sup></b>	[✓]
Ring/no answer	[ ]	<b>Auto Attendant <sup>1</sup></b>	[✓]
Busy	[ ]	<b>Outcalling</b>	[✓]
Busy/No Answer	[✓]	<b>Personal Greeting of Original-Called Party</b>	
Do Not Disturb	[ ]	Multiple Call Forward	[ ]
<b>Station Forward to Personal Greeting</b>		Double Call Forward	[ ]
All Calls	[✓]	Call Coverage	[ ]
Ring/no answer	[ ]	<b>Intercom Paging</b>	[ ]
Busy	[ ]	<b>Supervised Transfers <sup>1</sup></b>	
Busy/No Answer	[✓]	Call Screening <sup>1</sup>	[✓]
Do Not Disturb	[ ]	Call Queuing <sup>1</sup>	[✓]
<b>Flexible Forwarding</b>		Intercom Paging <sup>1</sup>	[✓]
Forward to No Answer Greeting	[ ]	<b>Identify Calling Party (Ver. 2.0 and up)</b>	
Forward to Busy Greeting	[ ]	System Forward to Personal Greeting	[ ]
Intercom/CO Forwarding	[ ]	Station Forward to Personal Greeting	[ ]
<b>Message Waiting</b>		Flexible Forwarding (NA with CO)	[ ]
LCD Display	[ ]	<b>Record Telephone Conversation</b>	
LED	[✓]		
Lamp	[ ]		
Audible / Stutter Dial Tone	[✓]		

*Note <sup>1</sup> External Callers Only, See Section 7.1*

*<sup>2</sup> Direct Call Limitations, See Section 7.4*

**Disconnect Type**

**4.1 DISCONNECT TYPE**

Disconnect is achieved via an A Tone sent from the DXP. For proper external disconnect supervision, Ground start or Supervised Loop start CO lines are recommended.

**Programming switch parameters**

**5.0 CONFIGURING THE COMDIAL DXP**

Before you begin programming, it is recommended that a hard copy of the customer database be obtained to verify existing programming.

Refer to the Programming section in the Comdial DXP manual for information on entering, saving, and exiting database programming.

**Configuring Station Ports for O100**

**5.1 CONFIGURING STATION PORTS FOR O100**

After installing the appropriate interface devices for the O100 ports (VMI-X for analog stations, ATI-D-1PT for digital stations, or DXIST for industry standard stations), you must identify the ports where the devices are connected. Program as follows:

1. From Main Menu, select Stations.
2. From Stations Menu, select Phone Types.
3. Enter the row number for the station port type. (ExecuTech=analog, DigiTech=digital, IST=industry standard).
4. Enter row number for the device that is connected to the O100 port (VMI-X or ATI-D-1PT). This step is not required for IST.
5. Enter the O100 station port number.

Repeat this step for each O100 port.

**Assigning O100 Ports to ExecuMail Table**

**5.2 ASSIGNING O100 PORTS TO EXECUMAIL TABLE**

This procedure is required to provide Voice Mail functionality to the O100 ports and also forms a circular hunt group for the O100 ports.

1. From Main Menu, select Peripherals.
2. From Peripherals Menu, select ExecuMail.
3. Enter the row number for the O100 port to be assigned as ExecuMail.
4. Enter the Intercom Number (or name) of the O100 port.
5. Press TAB to move cursor to the Linked Station field and enter the intercom number (or name) of the next O100 port (link the last O100 port to the O100 port in the first row).
6. Press ESCAPE and repeat steps 4-6 for the next row number.

**Configuring O100 Port Transfer Parameters**

**5.3 CONFIGURING O100 PORT TRANSFER PARAMETERS**

O100 listens for DTMF to determine call progress. Two DXP transfer parameters could conflict with O100 call progress, Automatic Attendant Transfer on Busy and Immediate Transfer. Both of these should be disabled.

Disable Automatic Transfer on Busy as follows:

1. From Main Menu, select Stations.
2. From Stations Menu, select Station Programming.
3. Enter the Intercom Number (or name) of the O100 port.
4. Enter the item number for the feature "Auto Att Transfer on Busy".
5. Press Space to toggle for the desired setting ("NO").
6. Press ESCAPE twice when finished.

Do this for each O100 port.

Disable Immediate Transfer as follows:

1. From Main Menu, select System.
2. From System Menu, select System Parameters.
3. Enter item number for the feature (Immediate Transfer).
4. Press Space to toggle for the desired setting ("NO").
5. Press ESCAPE twice when finished.

#### **Configuring O100 Port Ringing Assignments**

#### **5.4 CONFIGURING O100 PORT RINGING ASSIGNMENTS**

The Comdial DXP can be programmed to ring at the O100 port directly, delayed, or at night. Direct ringing will ring the O100 port immediately. With delayed ringing, calls wait before ringing the O100 port. Delayed ringing can be used to provide for operator overflow.

Ringling assignments are programmed as follows:

1. From Main Menu, select Stations.
2. From Stations Menu, select Station Programming.
3. Enter the intercom number of the first O100 port.
4. Enter the Item Number of the feature (Direct Ring, Delayed, etc.).
5. Press CONTROL-E
6. Enter "a" for add or "r" for remove, press Enter.
7. Enter the line port numbers (1-128) for the line you want to ring O100.
8. Press ESCAPE twice when you are finished.

#### **Configuring Specific Greeting By Line**

#### **5.5 CONFIGURING SPECIFIC GREETING BY LINE**

As an option, you can have O100 answer with a greeting specific to the line it came in on. This is done by programming the line with an ExecuMail ID that corresponds to a Mailbox in the O100 that is set up with a Vtree that answers calls according to how you set the Vtree up for that line.

Program the ExecuMail ID as follows:

1. From Main Menu, select Lines.
2. From Lines Menu, select Line Programming.
3. Enter the Line you want to program an ExecuMail ID for.
4. Enter the item number for the feature (ExecuMail ID).
5. Enter the Vtree Mailbox Number plus "2", press Enter.  
(example, Vtree Mailbox=300, ExecuMail ID = 3002)
6. Press ESCAPE twice when you are finished.

## **5.6 CONFIGURING CALL FORWARD**

This section contains information on programming System Call Forward to Personal Greeting and Station Call Forward to Personal Greeting.

System Call Forward to Personal Greeting is a feature provided for individual extensions by the System Administrator through station programming. It automatically forwards their phone to O100 under busy/no answer conditions without the subscriber having to set call forwarding from the station. System Call Forwarding is overridden if Station Call forwarding is set.

Program System Call Forwarding as follows:

1. From Main Menu, select Stations.
2. From Stations Menu, select Stations Programming.
3. Enter the intercom number of the station you want to set for call forwarding, press enter.
4. Enter the Item Number of the feature (Default FWD Type).
5. Press Space bar to toggle for desired setting ("Icm FWD"), press Enter.
6. Enter the Icm FWD To: (first O100 Port), press Enter.
7. Press Space bar to toggle for desired setting ("All Calls").
8. Press Escape.
9. Enter the Item number of the feature (RNA Rings), press Enter.
10. Enter the number of rings before the system will forward the call to O100, press Enter. *(Note: Ensure that RNA rings for the station is than the Station Transfer Recall Timer. Otherwise, transferred will recall to the station that transferred rather than forwarding to O100.)*
11. Press Escape twice when you are finished.

Station users can set call forwarding by using the LCD Display Menus or by dialing feature codes. System Call Forwarding is overridden if Station Call forwarding is set.

Subscribers can set Call Forward/All Calls from their stations as follows:

1. Press INTERCOM and listen for dial tone.
2. Dial \*52.

3. Dial extension number of the first O100 port.
4. Hang up.

Subscribers can set Call Forward Busy/No Answer from their stations as follows:

1. Press INTERCOM and listen for dial tone.
2. Dial \*54.
3. Dial extension number of the first O100 port.
4. Hang up.

Cancel Station Call Forward as follows:

1. Press INTERCOM and listen for dial tone.
2. Dial #5.
3. Hang up.

## **5.7 CONFIGURING VOICE MAIL TRANSFER BUTTON**

The system administrator can pre-program a button to transfer an incoming call directly into a voice mail box on O100. The subscriber can press the button plus the target mailbox number, and the call will be sent directly to the mailbox greeting.

Program the Voice Mail Transfer button as follows:

1. From Main Menu, select Stations.
2. From Stations Menu, select Button Mapping.
3. Enter the intercom number for the station(s) you want to program with this feature (the terminal will display a button map with current assignments).
4. Enter the code for the button you want to program (L1-L25), press Enter.
5. Enter the mnemonic (XVM) for Transfer to Voice Mail plus the 2 digit code for which O100 port (found in the ExecuMail table, 01-32) you want it to transfer to (typically the first O100 port, example XVM01).
6. Press Escape twice when you are finished.

## **6.0 CONFIGURING THE O100**

Section 6.1 is used for integrating O100 which provides for the detection of caller id when available from the PBX. During the install process run the Integrator program and select the Comdial DXP switch. The Integrator will place appropriate feature codes into the O100 Setup.

## **6.1 INTEGRATING O100 VERSION 2.0 AND ABOVE**

The Integrator inserts the following codes. Adjust to match site requirements.

### **O100 Configuration**

### **Integrating O100 Version 2.0 and above**

The information contained in this document is provided by AVAYA Inc. to serve as a guide. See the disclaimer on page 1

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Outside Line Access Code	<b>9,</b>
Off Hook Delay (OFFHDLY)	<b>50</b>
Hook Flash Interval (FLINTVL)	<b>50</b>
DTMF Tone Length (TONELEN)	<b>8</b>

**Transfer, Paging and Screening Parameters**

Custom Transfer Code	<b>A&amp;,XDR</b>
Custom Message Delivery Code	<b>AXD</b>
Intercom Paging Code	<b>A&amp;,C270NR</b>
Transfer Release Code when Busy	<b>&amp;</b>
Transfer Release Code when No Answer	<b>&amp;</b>
Call Screening Release Code when Busy	<b>&amp;</b>
Call Screening Release Code when No	<b>&amp;</b>
Call Screening Release Code when Reject	<b>&amp;</b>
Call Screening Release Code When Transfer	<b>&amp;</b>
Release Code for Intercom Paging	<b>&amp;</b>

**Message Waiting Parameters**

Permit Message Waiting Lights	<b>✓</b>
Message Waiting Light Prefix ON	<b>*3</b>
Message Waiting Light Prefix OFF	<b>#3</b>

**Hangup Detection Parameters**

Hangup String (HANGUPSTR)	<b>A</b>
Hangup String Timeout (HANGUPDLY)	<b>50</b>

**Inband Parameters**

Total Number of DID Digits	<b>8</b>
Seconds to Wait for First Digit	<b>1</b>
Millisecs to Wait for Next Digit	<b>500</b>

**Inband Templates**

<b>R2</b>	<b>Go to Voice Mail</b>
<b>R3</b>	<b>Auto Login</b>

These Codes apply to the Inband Template:

R = Receiving Mailbox

S = Sending Mailbox      X = Ignore Character

Valid Characters are:      ~ \$ \* # 0-9 A-D F N T

**Note: Verify all these dialing sequences for your PBX.**

**7.0 CONSIDERATIONS / ALTERNATIVES**

The following items should be considered, below:

- ø Internal transfers
- ø No Dialer or Immediate Call with Visual Mailbox
- ø Call Screening
- ø FaxMail
- ø Direct Call (for message retrieval)
- ø Unsupervised CO Lines

**Important notes concerning this integration**



## **7.1 INTERNAL TRANSFERS**

Ports programmed as ExecuMail cannot place internal (intercom) calls on hold, and thus cannot transfer internal calls. Due to this limitation, all Automated Attendant and Subscriber functions that require O100 to perform a transfer will fail if the subscriber (or caller) is calling from an internal extension. For example: Joe places an intercom call to Mary, Mary's phone is programmed to forward to O100. While Joe is listening to Mary's personal greeting, he presses 0 to reach Mary's Personal Operator. The transfer will not be complete and Joe will be dropped. If Joe was calling from an outside line, the transfer would be successful. Careful consideration must be used when using features such as Call Queuing, since an internal caller will never advance beyond the first position and will prevent all others queued to the extension from advancing.

## **7.2 NO DIALER OR IMMEDIATE CALL WITH VISUAL MAILBOX**

If the Visual Mailbox product is used (an option starting with version 2.0 software), Dialer and Immediate Call functions will not operate due to switch design shortcomings discussed above under "Internal Transfers."

## **7.3 CALL SCREENING**

O100 must establish a three way conference in order to return to the calling party if the subscriber wishes to reject or redirect a call. When using Call Screening to redirect or reject a call, the subscriber must wait until the entire phrase *"Please hang up now to transfer the caller"* or *"Thank you, good-bye"* is voiced before hanging up. Subscribers who have not been trained on the proper use of Call Screening should have the feature disabled in the Mailbox Class of Service.

## **7.4 FAXMAIL**

DXP ports that are programmed as ExecuMail ports cannot place internal (intercom) calls on hold, and thus cannot transfer. Due to this limitation, the Local Fax Machine must be attached to an outside line.

## **7.5 DIRECT CALL (FOR MESSAGE RETRIEVAL)**

If a station is programmed to forward to O100 (System Forward or Station Forward), the subscriber can dial his own extension and the call will forward to the Personal Greeting. During the Personal Greeting, the subscriber can press the pound key (#) and O100 will ask for the subscribers password. This will provide for quicker access to the mailbox for message retrieval.

## **7.6 UNSUPERVISED CO LINES**

The O100 may experience delays in disconnecting if using unsupervised trunks.

If Call Queuing is used, enable the System Parameter “Require Caller to Press Star to Stay in Queue”. Unsupervised CO lines will cause the Subscriber to receive phantom calls because of callers who have decided not to wait in queue. This will alleviate the perception that the called subscriber is losing calls.

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